unlike most species of *Stegomyia*. No observations were made on the habits of the adult. The species may be regarded as quite rare as it was encountered only twice during nearly a year of intensive collecting in the area. It is likely to be overlooked, however, as its larvae may be mistaken for those of certain species of *Armigeres* and its adults for certain other members of the *albolineatus* group.

ZOOLOGY.—*Recent species of the lucinoid pelecypod* Fimbria.[1] David Nicol, U. S. National Museum.

The living species of *Fimbria* [*Corbis*] were reviewed by Lamy in 1921. Since that time no comprehensive study of the genus has been published, and only a few figures, lists, or brief descriptions of its species have been mentioned in Indo-Pacific faunal studies. The number of specimens of *Fimbria* at the U. S. National Museum has been greatly augmented by the shells collected at Bikini, and with this large amount of material it is possible to add to our knowledge of the genus.

Although the Fimbriidae are now a small family comprising only the genus *Fimbria* with two living species, during Jurassic and Cretaceous times it was well represented in number of species in warm and temperate seas all over the world. At the end of the Cretaceous and during all of the Tertiary, the geographic range of the family has slowly contracted until it is found now only in the warm waters of the eastern Indian Ocean and the western and central Pacific Ocean.

Family FIMBRIIDAE, new name

Genus **Fimbria** Megerle von Mühlfeld, 1811

Genotype: *Fimbria magna* Megerle von Mühlfeld, 1811 = *Venus fimbriata* Linné, 1758 (monotypy).
Venus Linné, 1758 (in part).
Lucina Bruguière, 1797 (in part).
Gafrarium Röding, 1798 (in part).
Corbis Cuvier, 1817. Genotype: *Venus fimbriata* Linné, 1758 (monotypy).
Idothea Schumacher, 1817 (not *Idothea* Fabricius, 1796). Genotype: *Idothea perforata* Schumacher, 1817 = *Venus fimbriata* Linné, 1758 (monotypy).

For the past hundred years the name *Corbis* has been used almost without exception. Most workers consider *Fimbria* Megerle von Mühlfeld, 1811, a junior synonym. Bohadsch, 1761, had used the name *Fimbria* for an udibranch, but recently his work has been suppressed by a suspension of the rules (Opinion 185, 1944); thus *Fimbria* Megerle von Mühlfeld can be used. If the law of priority is followed, *Fimbria* Megerle von Mühlfeld, 1811, must replace *Corbis* Cuvier, 1817. One other solution is to ask for another suspension of the rules in order to continue the use of the name *Corbis*. Some taxonomists have thought that repeated suspensions of the rules would stabilize nomenclature. It is becoming more and more evident that this is not so, and, moreover, a suspension of the rules created the problem of *Fimbria* versus *Corbis*. Because the family is not a large or important one, the writer believes that the wiser course of action is to follow the law of priority, adopt the genus name *Fimbria*, and create the new family name Fimbriidae.

SHELL MORPHOLOGY OF LIVING SPECIES OF FIMBRIA

Shell.—Porcellanous, periostracum lacking.

Valves.—Equal, not gaping, subequilateral, transversely elliptical, ventricose.

Ornamentation.—Cancellate; concentric ribs more prominent; interior ventral, anterior, and posterior margins finely crenulated; most specimens exhibiting a shallow furrow which begins at the posterior end of the umbonal area and runs obliquely posteriorly and downward, passing in front of the posterior adductor muscle scar to the ventral margin; posterior edge of this furrow marked exteriorly by a change in the character of the ornamentation; small, slightly depressed, lanceolate lunule, varying in elongation, always present; narrow, depressed escutcheon occupied by ligament except for small part of posterior portion.

Beaks.—Prosogyrate, contiguous.

Ligament.—Parivincular, opisthodetic, external but sunken.

[1] Published by permission of the Secretary of the Smithsonian Institution. Received October 14, 1949.

Dentition.—Lucinoid, $\frac{\text{AI, 3a, 3b, PI}}{\text{AII, 2a, 4b, PII}}$ the posterior lateral in each valve located posterior to the escutcheon and far from the other teeth.

Muscle scars.—Pallial line integripalliate, but with a small sinus where it joins the posterior adductor scar; anterior adductor muscle scar usually larger than posterior adductor muscle scar, the latter almost round; anterior adductor muscle scar produced anterodorsally; pedal retractor scars small and lying close to the adductor muscle scars at the dorsal margin.

Fimbria fimbriata (Linné)

Figs. 1, 2, 4, 6, 7

1758. *Venus fimbriata* Linné, Syst. Nat., ed. 10: 687.
1780. *Venus fimbriata* Linné. Born, Test. Mus. Caes. Vind., etc.: 69, pl. 5, fig. 4.
1784. *Venus fimbriata* Linné. Chemnitz, Neues Syst. Conch.-Cab. 7: 3, fig. 8; 5, 52–54; pl. 43, figs. 448, 449.
1797. *Lucina [fimbriata]* (Linné). Bruguière, Tab. Encycl. Meth., livr. 2, vers test. biv.: pl. 286, figs. 3a–c.
1798. *Gafrarium fimbriatum* (Linné). Röding, Mus. Bolt., pt. 2: 176, no. 243.
1811. *Fimbria magna* Megerle von Mühlfeld, Entwurf Syst. Schal., Mag. Ges. Nat. freunde Berlin 5 (no. 1, art. 2): 52.
1817. *Corbis fimbriata* (Linné). Cuvier, Règ. Anim. 2: 481.
1817. *Idothea perforata* Schumacher, Essai Nouveau Syst. hab. vers test.: 161, pl. 18, figs. 3a, b.
1822. *Corbis fimbriata* (Linné). G. B. Sowerby, Genera Recent and fossil shells, pt. 2 (12): pl. 11.
1825. *Lucina fimbriata* (Linné). Blainville, Man. malac., etc.: 551, pl. 72, fig. 4.
1842. *Corbis fimbriata* (Linné). Reeve, Conch. Syst. 1: 81, pl. 57.
1843. *Corbis fimbriata* (Linné). Chenu, Illus. Conch., etc. 2: genus *Corbis*, pl. 1, figs. 1, 1a–g (1845).
1858. *Gafrarium fimbriatum* (Linné). H. & A. Adams, Genera Recent Moll., etc. 2: 470; 3: pl. 114, figs. 3, 3a.
1862. *Corbis fimbriata* (Linné). Chenu, Man. Conch. Pal. Conch. 2: 121, 122, fig. 584.
1869. *Fimbria fimbriata* (Linné). Pfeiffer, Conch.-Cab. 11 (Abt. 1, Veneracea): 278, 279, pl. 21, figs. 1, 2.
1873. *Corbis fimbriata* (Linné). G. B. Sowerby, *in* Reeve, Conch. Icon. 18: *Corbis*, sp. 1 (Nov. 1872).
1921. *Corbis fimbriata* (Linné). Lamy, Journ. de Conch. 65 (3): 286–288.
1941. *Corbis fimbriata* (Linné). Hatai, Bull. Trop. Ind. Inst. Palau South Sea Islands, Japan, no. 7a, b: 68, 69, pl. 36, figs. 1, 3, 6.

Description.—The ribs vary in strength and number on *Fimbria fimbriata*, but they are generally coarser on this species than on *Fimbria soverbii*. Some of the concentric ribs are sinuous, and a few occur only on the central part of the shell. The radial ribs are more prominent on the umbonal area and at the anterior and posterior ends giving the ribs on these areas a tuberculate appearance. Radial riblets occur between the heavy concentric ribs. On well-preserved specimens faint pink or salmon coloring occurs along the margins of the shell. Large specimens show a great thickening of the shell along the ventral border with the outer layer overhanging the inner ones.

Measurements, in millimeters, are as follows:

U.S.N.M. no.	*Height*	*Length*	*Convexity (both valves)*
599538	73.4	95.6	59.4 (Largest specimen in collection)
532314	59.7	74.5	44.0
594281	54.0	69.7	47.3
582737	55.0	69.3	45.4 (Largest specimen collected at Bikini)
599541	39.5	56.8	30.7
532314	31.3	43.4	23.8
7287	21.9	33.3	14.9

There is some variation in the ratio of height to length and height to convexity. The immature specimens are generally longer in respect to height and convexity than mature specimens.

Remarks.—The U. S. National Museum collection contains 69 specimens of *Fimbria fimbriata;* 32 of them were collected at Bikini and other northern Marshall Islands. Localities represented by specimens in the U. S. National Museum collection are:

CAROLINE ISLANDS: Lukunor Atoll, Oneap Island.

FIJI: Lau Group, Komo Island; Viti Levu Island, between Ellington and Korokula, Suva.

HAWAIIAN GROUP: Laysan Island.

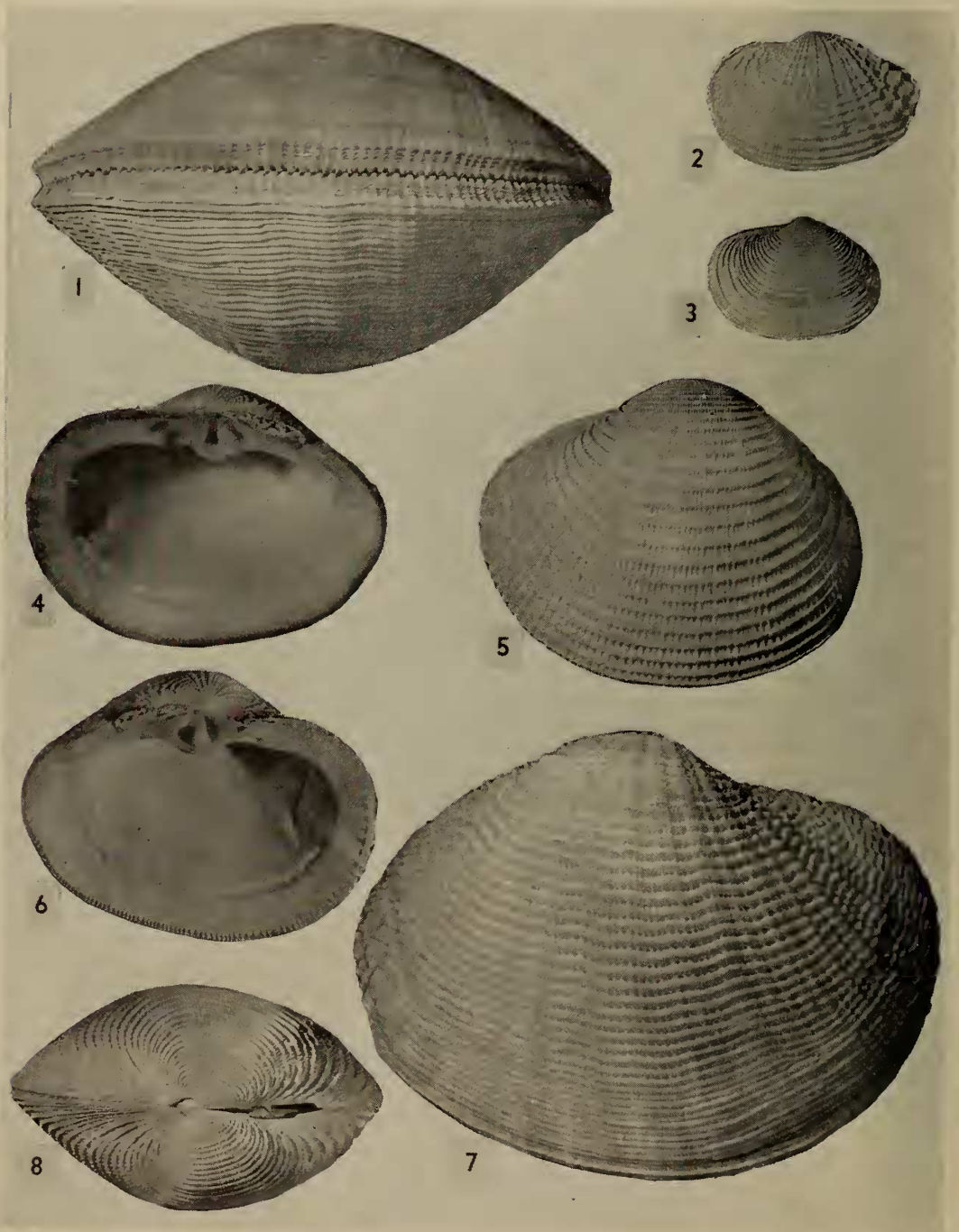
JAVA: Socmoer, Bantam.

MARIANAS: Maug Islands.

MARSHALL ISLANDS: Bikini Atoll, Bikini Island, Bokororyuru Island, Ourukaen Island, Yomyaran Island; Eniwetok Atoll, East Rigili Island, Pujiyoru Island; Kwajelein Atoll; Rongelap Atoll, Arbar Island, Busch Island, Enybarbar Island, Lomuilal Island, Rongelap Island.

PALAU ISLANDS: Kayangel Islands.

PHILIPPINE ISLANDS: Baluk Island; Basilan Island; Cebú Island, Cebú; Mani Island; Mindanao, Santa María, Zamboanga; Mindoro, Calapán; Santa Cruz Island; Tawi Tawi Group, Dammai Island, Papahag Island, Simaluc Island, Tawi Tawi Island, Tatán.



FIGS. 1, 2, 4, 6, 7.—*Fimbria fimbriata:* 1, Ventral view showing thickening of valves on gerontic specimen, U.S.N.M. no. 599538; 2, Left valve exterior, juvenile, U.S.N.M. no. 7287; 4, right valve interior, U.S.N.M. no. 583009; 6, left valve interior, U.S.N.M. no. 583009; 7, right valve exterior U.S.N.M. no. 599538.

FIGS. 3, 5, 8.—*Fimbria soverbii:* 3, Left valve exterior, juvenile, U.S.N.M. no. 344756; 5, left valve exterior, U.S.N.M. no. 599539; 8, dorsal view showing lunule and escutcheon, U.S.N.M. no. 599539.

(All specimens figured in the U. S. National Museum collection, Division of Mollusks. All figures $\times 1\frac{7}{10}$.

Fimbria soverbii (Reeve)

Figs. 3, 5, 8

1842. *Corbis soverbii* Reeve, Proc. Zool. Soc. London 1842 (pt. 9) (Proc. for Oct. 26, 1841): 85, 86.
1842. *Coris soverbii* Reeve. Reeve, Conch. Syst., etc.: **1**: 81, pl. 58.
1843. *Corbis elegans* Deshayes, Règ. Anim., etc., disciples ed., **5**: Les Mollusques, atlas, pt. 2, pl. 102, figs. 1, 1a (explanation facing pl. 102).
1843. *Corbis elegans* Deshayes. Chenu, Illus. Conch., etc., **2**: genus *Corbis*, pl. 1, figs. 2, 2a–e (1845).
1843. *Corbis sowerbii* Reeve. Hanley, Cat. Recent biv. shells: 75.
1844. *Corbis soverbii* Reeve. Hanley, Cat. Recent biv. shells: pl. 14, fig. 15, p. 348 (1856).
1850. *Corbis elegans* Deshayes. Deshayes, Traité élém. conch., etc.; 1 (pt. 2): 803, 804, pl. 15, figs. 7–9.
1858. *Gafrarium elegans* (Deshayes). H. & A. Adams, Genera Recent Moll., etc., **2**: 170.
1858. *Gafrarium sowerbii* (Reeve). H. & A. Adams, Genera Recent Moll., etc., **2**: 170.
1873. *Corbis sowerbyi* Reeve. G. B. Sowerby *in* Reeve, Conch. Icon. **18**: *Corbis*, sp. 2, pl. 1, figs. 2a, b (Nov. 1872).
1921. *Corbis elegans* Deshayes. Lamy, Journ. de Conch. **65** (3): 288.
1936. *Corbis elegans* Deshayes. Hirase, A coll. Japanese shells, etc., Tokyo, ed. 5: 15, pl. 27, fig. 6.
1941. *Corbis sowerbyi* Reeve. Hatai, Bull. Trop. Ind. Inst. Palau South Sea Islands, Japan, no. 7a, b: 68, pl. 53, fig. 2, pl. 54.

Description.—Thin concentric ribs run the length of the shell, and in large specimens they become more closely spaced ventrally. The concentric ribs are less pronounced at the anterior and posterior ends. Radial riblets appear in the interspaces and become more prominent at either end of the shell, especially on the anterior end. There are faint radial rays of orange and pink and occasionally a concentric ray of the same colors. The lunule is smaller and shorter in this species than in *Fimbria fimbriata*.

Remarks.—The U. S. National Museum collection contains only three specimens of this species; none were found at Bikini.

Measurements, in millimeters, are:

FIG. 9.—Map showing distribution of Recent species of *Fimbria:*

F. fimbriata ▲ Locality data based on U. S. National Museum specimens.
△ Locality data based on specimens in other museums and on published records.

F. soverbii ■ Locality data based on U. S. National Museum specimens.
□ Locality data based on specimens in other museums and on published records.

U.S.N.M. no.	Height	Length	Convexity (both valves)
599539	47.2	61.0	36.3
344756	37.3	52.7	26.8
344756	19.0	27.5	12.4

Locality represented by specimens in the U. S. National Museum collection—Japan, Kyushu, Osima Osumi.

DOUBTFUL SPECIES

Gafrarium (Corbis) caelatum A. Adams, Proc. Zool. Soc. London 1853, (pt. 21): 69, 1853 (habitat—Sorsogon, Island of Luzón, 6 fathoms, coarse sand).

Gafrarium (Corbis) scitulum A. Adams, Proc. Zool. Soc. London 1853 (pt. 21): 70. 1853 (habitat—Puerto Gallaro, 10 fathoms, coarse sand).

Dr. L. R. Cox, of the British Museum (Natural History), was unable to find the types of these two species. The original descriptions in Latin are brief, with no measurements, figures, or diagnostic characters of the genus. The writer has been unable to locate any additional data on the species in question except for their record in faunal lists of the Philippines. As Cox pointed out, a pallial sinus is mentioned in the description of *Gafrarium (Corbis) scitulum*. This would exclude the species from the Fimbriidae. These species must be considered as doubtful until more information is obtained concerning them.

SPECIES PREVIOUSLY ASSIGNED TO, BUT NOT BELONGING TO, THE FIMBRIIDAE

Chione despecta Hedley, Proc. Linnean Soc. New South Wales **29**: 193, 194, pl. 10, figs. 35–38. 1904 (genotype of *Bathycorbis* Iredale, 1930, original designation).

Corbis percostata Hedley, II. Report on the Mollusca obtained by the F. I. S. *Endeavour*, chiefly off Cape Wiles, South Australia (pt. 1): 92, 99, 100, pl. 17, figs. 9–12. 1911.

These minute Australian species have been allocated to *Corbis* by Hedley but have more recently been placed in the separate genus *Bathycorbis*. The lack of radial ribs and the presence of an elongate chondrophore are but two of the morphologic characters which would exclude these species from the Fimbriidae. Cotton and Godfrey (1938, p. 208) have placed *Bathycorbis* in the Lucinidae.

KEY TO THE RECENT SPECIES OF FIMBRIA

1. Concentric ribs coarse, some sinuous and appearing only on central part of shell *fimbriata*
2. Concentric ribs fine, running length of shell *soverbii*

ECOLOGIC AND GEOGRAPHIC DISTRIBUTION OF RECENT SPECIES OF FIMBRIA

In a letter to the writer, Dr. Joyce Allan made the following statement concerning the Australian species of *Fimbria:* "The main point about the Australian distribution is that the genus is reef-dwelling, not mainland littoral, and prefers a sandy environment." These same observations on ecology were made by Morrison at Bikini. He collected many shells at depths of not more than 25 feet on sandy coral and *Halimeda* bottoms. The geographic distribution of *Fimbria* shows its close relationship to a coral reef habitat, and although the depth to which these animals will live is not known, it is likely that they do not live at greater depths than the corals (about 200 feet).

The geographic distribution of *Fimbria* is shown on the accompanying map. These data were collected from specimens in the U. S. National Museum, from reports of other museum collections, and from the literature. *Fimbria* is such a distinctive shell that reports of its occurrence in Indo-Pacific faunas should be reasonably trustworthy. The greatest danger is incorrect locality data. The writer realizes, also, that molluscan faunal studies, particularly in the central and eastern Pacific, are not abundant enough to make the distributional picture of *Fimbria* complete. The limits of the genus eastward perhaps will expand with more collecting in that area. West of the Andaman Islands more careful collecting has been done, and more faunal lists are available. The reef conditions favorable for the genus are plentiful, but the writer was unable to find a record of it in the central and western part of the Indian Ocean. The occurrence of *Fimbria* at Laysan Island should be reaffirmed because Dall, Bartsch, and Rehder did not record it in their comprehensive work on the Hawaiian Pelecypoda.

It is noteworthy that the common species *Fimbria fimbriata* (Linné) has a broad east-west range which overlaps the much rarer *Fimbria soverbii* (Reeve). Approximately the eastern half of the distribution of *Fimbria* consists of *F. fimbriata*. *Fimbria soverbii*, on the other hand, has a north-south trending range, and it appears to be the only species in southern Japanese waters. Dr. Joyce Allan gave the writer the following data on the distribution of *Fimbria* in Australian waters:

The Australian range of *Fimbria* is from Queensland around to Northwest Australia, possibly as far south as Broome. The genus is confined to tropical rather than temperate Australian waters. It has not yet been recorded from New South Wales or southern Australia. The eastern Australian species is *F. fimbriata* which extends throughout most of the length of the Great Barrier Reef but possibly ranges into Northern Territorial waters. The western Australian species is *F. soverbii* which is found as far south as Broome.

According to Iredale's map of Australian marine provinces (1939, p. 220), all the Solanderian and at least a part of the Dampierian would encompass the Australian distribution of *Fimbria*.

From the above account it is apparent that reasonably detailed and accurate information, except for Australian waters, is lacking. In order to understand the origin and distribution of marine faunas, it is necessary to do much more thorough and careful collecting than has been done in the past.

ACKNOWLEDGMENTS

The information given by Dr. Joyce Allan (Australian Museum, Sydney) on the distribution of *Fimbria* in Australian waters has been most helpful. Dr. L. R. Cox, of the British Museum (Natural History), searched for the types of some of A. Adams's species. Additional data on the distribution of *Fimbria* were supplied by Dr. A. Myra Keen, of Stanford University, Dr. Leo G. Hertlein, of the California Academy of Sciences, and William J. Clench, of the Museum of Comparative Zoology. Dr. J. P. E. Morrison, of the U. S. National Museum, lent his notes on descriptions of localities at Bikini. The writer is greatly indebted to these persons for giving so much essential data for this paper.

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ZOOLOGY.—*A preliminary list of the cleidogonid millipeds, with descriptions of a new genus from Guatemala and a new species from Virginia.*[1] RICHARD L. HOFFMAN (Communicated by E. A. CHAPIN.)

While recently sorting and rearranging material in the diplopod collection of the U. S. National Museum, I discovered a vial of specimens taken in western Guatemala and labeled "*Cleidogona* n. sp." by Dr. O. F. Cook. Examination of these millipeds revealed characters that preclude their reference to *Cleidogona* or any other presently known group of the Cleidogonidae. A new genus is herewith proposed for the species, and the opportunity is taken for the inclusion of information on the cleidogonid genera recognized by me, preliminary to a projected revision of the family.

The family Cleidogonidae has, despite admirable descriptions of its members by Cook and Collins (1895), received much faulty treatment at the hands of European workers. Attems (1926) included *Cleidogona* and *Pseudotremia* in the family Pseudocleididae, a much later named based on his genus *Pseudoclis* from the Palearctic region; in this he has been followed by R. V. Chamberlin in several recent papers. The name

[1] Received November 1, 1949.